Jeff Grogger  
Harris School  
University of Chicago  

**PP 346: Program Evaluation**

Section I: TThu 9:30-10:50 am  
Section II: TThu 11:00am-12:20 am  
**NOTE:** All times are Chicago time

**Instructor:** Jeffrey Grogger  
jgrogger@uchicago.edu  
Office hours: TBA

**Teaching Assistant:**

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<tr>
<th>Name</th>
<th>Office hours</th>
<th>Email</th>
</tr>
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<tbody>
<tr>
<td>Terence Chau</td>
<td>TBA</td>
<td><a href="mailto:terencechau@uchicago.edu">terencechau@uchicago.edu</a></td>
</tr>
<tr>
<td>Silky Agarwal</td>
<td>TBA</td>
<td><a href="mailto:silkyagrawal@uchicago.edu">silkyagrawal@uchicago.edu</a></td>
</tr>
<tr>
<td>Natalia Tosi</td>
<td>TBA</td>
<td><a href="mailto:nvtosi@uchicago.edu">nvtosi@uchicago.edu</a></td>
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**Web site:** All materials for the class will be posted to its site on Canvas.

**Course content:** To introduce students to program evaluation and provide an overview of current issues and methods.

**Texts:** There are no required texts, but you may find it useful to refer to a standard econometrics text such as *Introductory Econometrics: A Modern Approach*, by Jeffrey Wooldridge. Specific readings for each topic appear below. Other useful references are:


**Grading:** Grades will be based on five problem sets and a final exam. The problem sets will count collectively for 80 percent of the grade and the final exam will count for 20 percent.

**Problem sets:** The problem sets are mostly empirical exercises that have you employ a number of evaluation techniques, using real data and writing real computer programs. Most students have found the problem sets to be quite challenging. Ideally, you will have taken, or at least be taking concurrently, PPHA 30535/30536 - Data and Programming for Public Policy. At the other end of the spectrum, *if you struggled with the empirical exercises during the econometrics sequence, this is not the right class for you.* PP 346 is taught every quarter, and different instructors teach it differently.
Problem sets must be submitted electronically following the guidelines posted under the Assignments section of the class Canvas site. Late problem sets will not be accepted. Each assignment will receive equal weight. Only four of the five problem sets will count toward your grade; I will automatically drop the one with the lowest score. You may ask classmates or the TA’s for help with the problem sets, subject to the conditions below, but you must hand in your own work. Copying the work of another student is cheating, as is allowing another student to copy yours. Cheaters can expect no leniency.

**Final exam.** For the final exam, you will read a set of evaluation articles, then critique them according to a set of questions with which you will be provided. The readings and questions will be posted during the last class on Friday, Dec. 3. The exam will be due on Friday, Dec. 10, at 11:59 pm. The exam must be submitted through Canvas; details will be forthcoming.

**Logistics.** Instruction will be carried out in “dual mode.” In English, this means that students who are present in Chicago will be expected to attend class, which will be held live. Students outside of Chicago will be able to join those classes remotely. In principle, both live and remote students will be able to answer questions in real time. Videos of the live lectures will be posted so students can review them, if they choose. Of course, this all presumes that the IT works as planned. Furthermore, depending on the covid situation, details may change at any time.

**Communication with TAs and other students**
You can use Piazza to communicate with the TA’s and other students. TA’s will respond in a reasonable amount of time, but immediate turnaround is not a reasonable expectation.

Piazza posts will be public, for several reasons. First, it is efficient. Singleton questions are rare. If you have a question, probably someone else has the same question. Everyone can benefit from the answer. Another reason is that questions beget questions. If one student sees others posting, he/she is more likely to post him/her self. And more questions are better. Third, part of professional education is learning to make yourself heard, even in situations you may find awkward. So grit your teeth and post your question! The sky will not fall, I promise.

**Academic Integrity.** To reiterate, you may consult with others while you work, but you must follow these procedures:

- Your problem set must be solely your authorship (written up by yourself, in your own language, including your own code.)
- Your code must have a comment at the top listing the students/TA’s/consultants with whom you consulted.
- Any part of your code that was substantially altered because of your discussion with other students/TA’s/consultants should cite others' contributions with names and descriptions in a comment at the place where it is applicable.
- Any code based on code that you found on line must be documented as such. This includes single lines of code and code that you found but then modified to fit
your purpose. Documentation must include the URL and the date and time of access.

Students who violate these procedures, or otherwise violate academic honesty policies, will receive a zero for the problem set or exam in question AND for a second problem set. These problem sets will NOT be dropped for the purpose of calculating your grade.

All University of Chicago students are expected to uphold the highest standards of academic integrity and honesty. Among other things, this means that students shall not represent another’s work as their own, use un-allowed materials during exams, or otherwise gain unfair academic advantage. All students suspected of academic dishonesty will be reported to the Harris Dean of Students for investigation and adjudication. The disciplinary process can result in sanctions up to and including suspension or expulsion from the University, in addition to the grade penalty mentioned above. The Harris policy and procedures related to academic integrity can be found at https://harris.uchicago.edu/gateways/current-students/policies. The University of Chicago Policy on Academic Honesty & Plagiarism can be found at https://studentmanual.uchicago.edu/academic-policies/academic-honesty-plagiarism/

Topics and readings

I. The Evaluation and Selection Problems


II. Treatment Parameters

Blundell and Dias, section II

3, sections 1 through 3.


III. Instrumental Variables

Blundell and Dias, section VI


IV. Social Experiments

Blundell and Dias, section III


V. Regression Discontinuity


**VI. Natural Experiments/Panel Data**

Blundell and Dias, section IV


**VII. Matching**

Blundell and Dias, section V


**VIII. Permutation Inference**


**IX. Synthetic Control**


**X. Multiple Hypothesis Testing**


Ridgeway, G., & Macdonald, J. M. (2009). Doubly robust internal benchmarking and